



INTERNATIONAL ATOMIC ENERGY AGENCY

TECHNICAL COOPERATION DEPARTMENT

PROJECT RER/9/095

“Strengthening Safety Assessment Capabilities”

PROSPECTUS FOR A

IAEA REGIONAL WORKSHOP

ON

**Essential Safety Assessment Knowledge:
An Introduction to DSA and to PSA**

23 - 27 November 2009

**The Abdus Salam International Centre for Theoretical Physics
Trieste, Italy**

PROSPECTUS

TITLE: Regional Workshop on Essential Safety Assessment Knowledge:
Introduction to DSA and PSA

PLACE: The Abdus Salam International Centre for Theoretical Physics

DATE: 23-27 November 2009

DEADLINE FOR
NOMINATIONS: **24 September 2009**

ORGANIZERS: International Atomic Energy Agency (IAEA) in cooperation
with the International Centre for Theoretical Physics, Trieste,
Italy

TARGET COUNTRIES: This workshop is designed for staff of regulatory authorities,
utilities and design or technical support organizations (TSOs)
from countries in the European region in receipt of assistance
under the IAEA Technical Cooperation Programme.

PARTICIPATION: The workshop is open to 20 participants.

LANGUAGE: The workshop will be conducted in English.

PURPOSE OF THE WORKSHOP:

The Safety Assessment Education and Training Programme (SAET) curriculum outlines the knowledge needed for understanding the basis for and the safety requirements associated with the design and operation of nuclear facilities and it identifies specialized knowledge necessary for performance of safety analyses which will demonstrate compliance with those requirements. The Workshop in Essential Safety Assessment Knowledge will provide an introduction to deterministic and probabilistic safety analyses for professionals in countries considering new nuclear power programmes or expanding their established NPP programmes.

The main emphasis of the SAET series of workshops lies in providing students with a good understanding and practical knowledge of:

- The fundamental principles which underlie nuclear safety;
- The safety requirements which ensure that those principles are met;

- The principles of safety analysis techniques used to demonstrate compliance;
- Practical experience of applying those techniques and of using the related computer codes and models employed to perform the analyses;
- Practical experience of the activities required to verify and validate analyses.

The workshop will include essential knowledge elements, presentations and discussions on deterministic and probabilistic safety analyses.

Discussions on deterministic safety analysis (DSA) will focus on the scope of deterministic analysis; an overview of codes used in safety analysis, fundamentals of modelling, and will address the conservative vs. best estimate analysis. Discussions and presentations on probabilistic safety analysis (PSA) will focus on basic concepts, principles of system modelling and analysis, and an introduction to PSA levels 1 through 3. This workshop is intended for professionals from countries developing new, or expanding existing nuclear power programmes. This course is tailored for professionals working at regulatory authorities, TSOs and in plant operations, seeking to enhance their knowledge of safety assessment.

Based on the workshop presentations and group discussions areas where further international efforts are needed to facilitate the implementation of selected techniques and enhance DSA and PSA practices in the region will be identified.

Participants will be expected to present their national experiences on the topics for the workshop, outlined in the attached syllabus.

QUALIFICATIONS:

The participants should be professional staff members of the regulatory authorities, utilities and design or technical support organizations from the region.

They should have a basic level of experience in safety assessment.

NATURE OF THE WORKSHOP:

The workshop will consist of presentations and discussions. All participating countries are expected to present their national experience/approach related to event investigation analyses.

APPLICATION PROCEDURE:

Nominations should be submitted on the standard IAEA Nomination Form for *Workshop/Workshop and National Consultant* (available through the IAEA's website). Completed forms should be endorsed by relevant national authorities and returned to the Agency through the official channels (the Ministry of Foreign Affairs, the National Atomic Energy Authority, or the

Office of the United Nations Development Programme). Applications must be received by the International Atomic Energy Agency, P.O. Box 100, A-1400, Vienna, not later than **24 September 2009**

Nominations received after that date or applications sent directly by individuals or by private institutions cannot be considered. Advanced nominations by facsimile (+43-1-2600 29634) or e-mail (Official.Mail@iaea.org with a copy to K.Lechner@iaea.org) are welcomed. The facsimile/e-mail should contain the following basic information about the candidate: name, age, academic qualifications, and present position including exact nature of duties carried out, proficiency in English and full working address (including facsimile and telephone numbers) to enable the IAEA to make preliminary evaluation of the candidates.

ADMINISTRATIVE
AND FINANCIAL
ARRANGEMENT:

Nominating governments will be informed, in due course, of the names of the selected candidates and at that time will be given full details of the procedure to be followed with regard to the administrative and financial matters.

During their attendance at the workshop, participants from countries eligible to receive technical assistance will be provided by the IAEA with a stipend sufficient to cover the cost of their accommodation, food and minor incidental expenses. The IAEA will provide the participants with a round trip air ticket, economy class, from their home countries to Trieste, Italy and back. Shipment of accumulated workshop materials to the participants' home countries is not the responsibility of the IAEA.

The organizers of the workshop do not accept liability for the payment of any costs or compensation that may arise from damage to or loss of personal property from illness, injury, disability or death of a participant while he/she is travelling to and from or attending the workshop, and it is clearly understood that each Government, in nominating participants takes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.